

CLAIMS

1. Glass compositions for the production of lead-free crystals, having a density greater than 2.4g/cm^3 , a refractory index of at least 1.51 and high resistance to chemical attack, characterized by comprising, by weight: from about 50% to about 75% of SiO_2 ; from about 0,1% to about 1% of As_2O_3 ; from about 5% to about 15% of K_2O ; from about 2% to about 6% of Na_2O ; from about 3% to about 12% of CaO ; from about 0,1% to about 5% of BaO ; from about 0,1% to about 10% of Nb_2O_5 ; and, up to 5% of other elements.

2. The glass compositions of claim 1, characterized by comprising, by weight: from about 60% to about 75% of SiO_2 ; from about 0.1% to about 1% of As_2O_3 ; from about 6% to about 15% of K_2O ; from about 2% to about 6% of Na_2O ; from about 3% to about 10% of CaO ; from about 0.1% to about 5% of BaO ; from about 0.1% to about 10% of Nb_2O_5 ; and, up to 5% of other elements.